

The Component Services Section (CSS) of NASA White Sands Test Facility's (WSTF) Hardware Processing Department continues to innovate new and improved methods of processing flight critical hardware.

WSTF's Valve Repair (VR) Facility worked innovatively as a team to meet The National Board of Boiler and Pressure Vessel Inspectors National Board Inspection Code (NBIC) requirements and received "VR" certification to repair and refurbish code-stamped pressure relief valves. Only facilities certified by the NBIC can perform relief valve refurbishment and retain the valve's code stamp. Unique to WSTF, and to NASA, is receiving "ownership" of the "VR" stamp. WSTF also worked closely with NBIC to develop a Quality Control Manual for the facility. WSTF's VR Facility is now the only one in the world to offer valve repair in a clean room environment, and the only one to flow test at the highest pressure possible – 110% of set pressure. WSTF's VR Facility exceeds industry standards and is positioned to be ready for advancements in materials that will be lighter and hold more pressure than current materials.

A team of CSS engineers and technicians worked to build a hydrostat test chamber using an existing chamber. The fully contained system is certified to ASME B31.3 Chapter IX High Pressure requirements and is capable of testing more than 98% of components needing hydrostat pressure tests. The chamber can accommodate flex hoses, pressure vessels, heat exchangers, component filters, and other uniquely designed system units up to 24 ft long and is able to contain energy releases from projectiles resulting in a velocity equal to that of a 9 mm bullet.

CSS Clean Room personnel, along with the Environmental Department and Facilities Operations, developed and implemented a plan to recycle, reuse, and reduce the use of distilled water to rinse components. This process will save money on electricity and conserve water resources.